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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,118	12/17/2001	Masahiro Yanagi	1614.1205	4188

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EXAMINER
LAO, LUN YI

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/016,118	YANAGI, MASAHIRO	
	Examiner	Art Unit	
	LUN-YI LAO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 6-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 6-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 6 and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al(5,809,433) in view of Rudisill et al(6,272,324) and Hattori et al(5,638,441).

. As to claims 1-3, 6 and 14-22, Thompson et al teach an input device input device comprising an antenna(107, 750, 860 or 970) arranged at an upper surface inside the housing(102 or 101) and emitting a radio wave based on input information generated by the input part (keypad)(see figures 1-2, 6-10; abstract; column 2, lines 6-65; column 3, lines 39-41; column 5, lines 50-55 and column 6, lines 21-43). Thompson et al teach an input device(100) having a plurality of input parts(keys exposed part and keys covered part when a cover(111) is in a close position)(see figures 1-2 and column 3, lines 38-49). Thompson et al teach the housing(102 or 101) comprising a case having a first of plurality of input parts(the keys covered in a close position); and first upper

cover(103)(e.g, first cover, figure 7) is swappable(exchange) with a second upper cover(e.g. second cover, figure 8)(see figures 1-2; figures 7-10 and column 2, lines 6-33). Thompson et al teach the antenna is arranged inside each of upper covers at an uppermost portion of the housing(102 or 101)(see figures 1-2, 7-10 and column 2, lines 5-35); a communicating part(515) provided to the case and supplying a transmission signal(placing a call or sending e-mail) to the antenna(107 or 750 or 860 or 970)(see figures 1-3, 7-10; abstract; column 1, lines 46-48; column 2, lines 57-65; column 3, lines 10-20 and lines 39-60); and the antenna(107 or 750 or 860 or 970) is detachably (unfastener) connected to the communicating part (515) by a connector(see figures 1-5, 7-10; column 3, lines 10-68 and column 4, lines 1-57).

Thompson et al fail to disclose a detachable upper cover and a detachable antenna and the input part is arranged on each of the detachable upper covers.

Rudisill et al teach a detachable upper cover(14) with an antenna(24, 26) and the antenna(24, 26) is detachable from the case(12) along with each of the detached upper covers(14)(see figures 1-5; abstract; column 1, lines 47-58; column 4, lines 5-34; column 5, lines 31-68 and column 6, lines 1-49). It would have been obvious to have modified Thompson et al with the teaching of Rudisill et al, since Thompson et al have disclose the cover(103) connected to the housing(101 or 102) by a hinge(see figure 1, 4; column 3, lines 61-68 and column 4, line 1) and a damage cover could be easy to repair or replace(see Rudisill et al's column 1, lines 47-54).

Hattori et al teach an input part(24b) mounted on an upper cover(24)(see figures 4-7; column 5, lines 13-62 and column 6, lines 1-16). It would have been obvious to

have modified Thompson et al as modified with the teaching of Hattori et al, so accidental or erroneous operation could be prevented(see column 5, lines 26-27).

As to claim 2, Thompson et al(5,809,433) teach the antenna(107, 750 or 860 or 970) is made from a conductive wire rod(e.g. copper)(see figures 7-10 and column 4, lines 6-25).

As to claim 3, Thompson et al teach the antenna(107, 750 or 860 or 970) is formed by printing a conductor(e.g. 648 or 649) on the upper surface inside the housing(101 or 102) (see figures 1-2 and 7-10).

As to claim 6, Thompson et al teach the input part(e.g. 109) is detachably connected to communicating part(515) by connector(see figure 1-3 and column 3, lines 10-20).

As to claim 20, Thompson et al teach a wireless input device having a first input part (the keys covered in a close position); a case having a second input part(the keys exposed in a close position)(see figures 1-2 and column 3, lines 39-49); And the first detachable upper cover(112) having an antenna(107) for transmitting data(e.g. telephone number)(see figures 1, 2, 6-9; column 3, lines 10-37 and column 5, lines 11-35).

As to claims 14, 17 and 22; It would have been obvious to have a screw that connect the top and the bottom parts since Thompson et al teach the top connected to the bottom by hinge(see figures 1-4; column 3, lines 61-68 and column 4, line 1).

As to claims 15-16 and 18-19, Thompson et al teach the antenna(107, 750 or 860 or 970) is arranged so as to surround a center portion or a depress keytop of the upper cover(3) (see figures 1-2, 7-10).

As to claim 21, Thompson et al teach the first detachable upper cover(see figure 7) having an antenna(107) arranged so as to surround a center portion of the first detachable upper cover is swappable with the second detachable upper cover(see figure 8) having an antenna(750) arranged so as to surround a depressible keytop in the second detachable upper cover(see Thompson's figures 1, 8 and Uattori's figure 4).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al(5,809,433) in view of Rudisill et al(6,272,324), Hattori et al(5,638,441) and Chen(6,373,469).

Thompson et al as modified point out the communication method is an Amplitude Shift Keying method.

Chen teaches an Amplitude Shift Keying communication method(see column 1, lines 4-10 and lines 30-35; and claim 1). It would have been obvious to have modified Thompson et al as modified with the teaching of Chen, so as to eliminate calibration step, simplify manufacture and enhance yield(see column 1, lines 30-35).

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al(5,809,433) in view of Rudisill et al(6,272,324), Hattori et al(5,638,441) and Yrbanac(5,708,458).

Thompson et al as modified point out the communication method is a Frequency or Phase Shift Keying method.

Yrbanac teaches a Frequency or Phase Shift Keying communication method(see column 5, lines 25-38). It would have been obvious to have modified Thompson et al as modified with the teaching of Yrbanac, since a Frequency or Phase Shift Keying communication method is well know and common standard wireless communication method; and a Frequency or Phase Shift Keying method could eliminate calibration step, simplify manufacture and enhance yield.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al(5,809,433) in view of Rudisill et al(6,272,324), Hattori et al(5,638,441) and Lochner et al(2002-0077067).

Thompson et al as modified point out the communication method is a Spread Spectrum Communication method.

Lochner et al teache a Frequency or Phase Shift Keying method(see claims 2-3). It would have been obvious to have modified Thompson et al as modified with the teaching of Lochner et al, so as to provide a longer range communication.

6. Claims 11-13, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al(6,356,243) in view of Rudisill et al(6,272,324).

As to claims 11-13, 23 and 24, Schneider et al teach a wireless input device(210) comprising a cover ; an antenna(240 , 310 or 460) having different arrangement(see figures 2A-2C; column 5, lines 45-66); a first input part(e.g. a mouse(130) having mouse buttons) and a second input part(mouse(130) inherent having a mouse ball)(see figure 1). Schneider et al teach the antenna(240, 310 or 460) for transmitting data received

from the first input part(mouse buttons) and the second input part(mouse ball)(see figures 2A-4C and column 5, lines 9-20).

Schneider et al fail to disclose the cover with antenna is swappable with another cover.

Rudisill et al teach a detachable upper cover(14) with an antenna(24, 26) and the antenna(24, 26) is detachable from the case(12) along with each of the detached upper covers(14)(see figures 1-5; abstract; column 1, lines 47-58; column 4, lines 5-34; column 5, lines 31-68 and column 6, lines 1-49). It would have been obvious to have modified Schneider et al with the teaching of Rudisill et al, so a damage cover could be easy to repair or replace(see Rudisill et al's column 1, lines 47-54).

As to claim 11, Schneider et al as modified teach the antenna located at an uppermost portion of the inside volume(see Rudisill's figure 4) and for transmit a radio signal comprising coordinate data(mouse data) to a receiving unit(170) that is connected to a processing unit(CPU, 150)(see Schneider's figures 1A-2C; column 4, lines 26-33, and column 5, lines 9-20).

As to claim 12, Schneider et al teach a radio transmitting circuit board(320 or 420) that is contained within the inside volume, wherein the antenna(310 or 410) is a conductive wire rod that is connected to the radio transmitting circuit board(320 or 420) at only one end of the conductive wire rod (see figure 13A-4A; column 7, lines 8-22 and column 8, lines 37-52).

As to claim 13, Rudisill et all teach the antenna(24, 26) is formed by a printed wiring method on an underside of the upper cover(14)(see figures 1 and 4).

Response to Arguments

7. Applicant's arguments with respect to claims 1-3 and 6-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakamura et al(6,801,967) teach a wireless mouse having an antenna.

Unsimäki(6,571,086) teaches a wireless communication device having a cursor control means(7).

Kodera et al(6,434,370) teaches a wireless communication device having a cursor control means(24).

Miyashita(6,909,906) teaches a wireless communication device having a trackball(131)(see figure 4).

Steele et al(6,201,534) teaches a wireless communication device having a trackball(108).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 2, 2007

Lun-yi Lao
Primary Examiner